Technical Assistance — Peach County

# Woolfolk Chemical NPL
# January 7, 2007

In November 2007, the Peach County School Site Selection Committee reviewed and approved the proposed school site located off University Boulevard in Peach County, Georgia. Two days after the approval was granted, the Department of Human Resources (DHR) was made aware of preliminary sample results indicating elevated levels of arsenic adjacent to the property of the proposed school site. Because of this new data, the School Site Selection Committee temporarily suspended the approval and requested a re-evaluation of the Phase I Environmental Site Assessment (ESA) soil data collected from the proposed school site. Assistance was requested from DHR's Chemical Hazards Program by the School Site Selection Committee.

Sampling was conducted during a Phase I ESA of the proposed school site. Surface and subsurface soil (from 0-2 feet below ground surface) samples were taken from various locations throughout the property. Samples were analyzed for organochlorine pesticides, herbicides, PAHs, PCBs, RCRA metals, mercury, and VOCs. Analytical results showed that all constituents tested for were below regulatory limits for soil except barium (23.8 mg/kg), chromium (5.4 mg/kg), lead (6.1 mg/kg), and acetone (320 mg/kg). However, all of the above constituents were far below Agency for Toxic Substances and Disease Registry (ATSDR) comparison values and/or Georgia Environmental Protection Division residential soil cleanup values. The comparison values (CVs) generally include ample safety factors to ensure protection of sensitive populations. Because CVs do not represent thresholds of toxicity, exposure to contaminant concentrations above CVs will not necessarily lead to adverse health effects. Therefore, daily exposure to surface and subsurface soil on the proposed school site is highly unlikely to cause adverse health effects in children who may be attending the school. Furthermore, paving and groundcover likely to be included on the finished school property will lessen the chance for exposure to the underlying soil.

In July 2002, the Fort Valley Utility Commission (FVUC) installed a cathodic protection system for their natural gas pipeline located on the south side of University Boulevard approximately 400 to 600 feet east of the proposed school site near the intersection of U.S. Highway 341. Soil samples were collected by FVUC and subsequent analysis showed arsenic concentrations in subsurface soils of 180 to 850 mg/kg. Arsenic concentrations at these levels do exceed ATSDR comparison values. However, since these concentrations were found below (subsurface) the basin of the drainage ditch 400 to 600 feet east of the proposed school site, human exposure to this subsurface soil is unlikely.

In September 2007, the USEPA began an ecological study to determine the potential impacts of arsenic contamination that may possibly be related to off-site migration from the Woolfolk Chemical Superfund Site, located approximately 1.2 miles north of the proposed school site. Samples were collected in topographic low lying areas (wetland region), which extend south of Woolfolk Chemical and south and east of the proposed school site. Preliminary soil, sediment, and surface water data was presented at the Woolfolk Alliance Meeting held in Fort Valley, GA on December 11, 2007. Some hazardous constituents exceeded ATSDR comparison values. According to the Phase I ESA, the general land surface gradient at the proposed school site slopes from north to south and it does not appear that manmade drainage features are located directly north of the site that could convey surface water to the site as a point source. Therefore, the potential for exposure to arsenic that might be carried in surface water runoff to the proposed school site is not a concern.

Having evaluated existing sampling data from the proposed school site, CHP concludes that children are unlikely to be exposed to elevated levels of constituents found if the proposed school is constructed. If the school board is concerned about elevated levels of arsenic found below the basin of the drainage ditch located 400 to 600 feet east of the proposed school site, and EPA's ecological study results of the low-lying areas near the proposed site, a fence limiting access to the drainage ditch would be an appropriate measure to protect public health.